Storage, Shipping And Precooling Of Stone Fruits

F. J. Braasch

The ability to hold stone fruits for even a week or ten days makes it possible for the canner or processor at the peak of the harvest season to receive fruit faster than it can be processed.

Most stone fruits will, even under best storage conditions, show some deterioration, with the amount and rapidity depending largely on the condition of the fruit when received.

Storage Temperature

The storage temperature and humidity generally recommended for peaches, apricots, plums and cherries is 31° to 32°F, with a relative humidity of 85-95%.

After a number of weeks in experimental storage at 32° the flesh of some well-matured peaches frequently becomes bruised, or even a yellowish discoloration on the skin. Such fruit remained normal or else reddening and softening occurred very soon after the fruit became ripe.

It has been reported that storing fruit did not occur, peaches stored at 30° and ripened at 95° were often of distinctly better quality than those stored at 85%. When all stone fruits, unless it be claimed, storage temperatures between 30° and 95° for any length of time have proven unsuitable.

One of the first signs of deterioration in peaches,nectarines and apricots is loss of flavor—followed perhaps by a dissolution of the flesh. This loss of flavor may be noticeable even after a period of ten days.

In some of our experimental lots of peaches, quality still existed after a storage period of four weeks at 32°, with samples of good color and flavor. This quality, however, only lasted so long as the fruit was being regularly rotated at a constant temperature and humidity.

Apricots

Well matured apricots in a few instances have been held with fine appearance for eight weeks. Observations, however, on approximately 200 samples have indicated that apricots generally deteriorated and that 12% developed some browning around the pit during four weeks in storage. Little difference was noted in this respect between samples held at 32° and 30°.

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Comparative Tests On Plowed And Unplowed Soil For Sugar Beet Seed-bed Preparation

L. D. Houten

Results of trials over a period of four years show that nothing is gained in the production of sugar beets by plowing the soil in seed-bed preparation provided sterile cultivation kills all the weed growth. In this study, plowed and unplowed plots proved to be substantially the same in yield, sugar content, purity, and number of beets per acre, the volume weight and core space of the soil, penetration rates of the irrigation water, and the shape of the beets.

On heavy soils, the surface soil, plowing may be practical for burying their deep roots and thus eliminating some of the weed growth in the following season.

Under certain other conditions, such as where a deep plow prong exists, deep tillage or plowing may be necessary. Flow pass interferes with the penetration of irrigation water and sometimes causes rotting of the beet root.

Partial view of the plowed and unplowed plots in the seed-bed preparation experiment. The rough land indicates the unplowed plots, while the light areas indicate the plowed plots.

Field Trials

As sugar can not be exported directly, growers must sell their beets in lieu of sugar beets. In many areas in California, sugar beets generally are sold to the mill as sugar beets. The total average cost per acre was 79c per acre.

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Control Of Vapors In Storage Essential For Prolonging Life Of Avocados And Citrus Fruits

J. B. Biale

In cases of storage-dampness, the relative humidity and the temperature of the air in the storage room must be maintained. In general, it is necessary to maintain the relative humidity in the range of 90-95% and the temperature at 32°F to 34°F.

In cases where boxes of fruit are left in the storage room for long periods, it is necessary to maintain the relative humidity in the range of 90-95% and the temperature at 32°F to 34°F.

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Satisfactory Control Of Wild Morning-glory By Use Of 2,4-D Requires Proper Application

W. A. Harvey and W. W. Robbins

In a recent publication in the College of Agriculture, Agricultural Extension Service, Bulletin 992, the detailed results of trials made at Experimental Station, Davis, are given. These results show that 2,4-D offers promise of control of morning-glory in grain fields, but its use should be carefully controlled to avoid injury to other desirable plants.

Underground Water Supply During Low Rainfall Seasons

C. N. Johnston

Seasons of low rainfall are generally periods accompanied by a high incidence of underground water use by the irrigated crops. This is particularly true of the western slope of the Sierra Nevada where the irrigated crops are those of the field and small grains.

Selectivity

Because of the high susceptibility of morning-glory to 2,4-D, the selective control of this weed is often possible.

In strawberry plantings it has been observed that when the strawberry plants bloom at the time of spraying, the morning-glory will not be killed by the spray. If the strawberry plants bloom later, the morning-glory will be killed.

Fallowing, the ground should be left in fallow for at least three years before the following season. This is necessary to prevent the development of new roots from the seedling weeds.

Satisfactory control will result only if the timing of the treatments is carefully controlled. The planting of other crops is particularly following cultivation, has been a poor practice. The work of Dr. E. O. Reed and others has indicated the possibility of using 2,4-D for the control of morning-glory in the future.

Sodium chloride is added to the water supply to increase the salinity of the water and to reduce the amount of ground water. The use of such sodium chloride solutions is not recommended.

The amount of sodium chloride used should be limited to the amount required to reduce the salinity of the water to a level that is not harmful to the crops. The amount of sodium chloride required will depend on the specific conditions of the water supply and the crops being grown.

Treatment of old plants in irrigated areas, and particularly in areas where the water supply is controlled, is necessary to prevent the development of new roots from the seedling weeds. The treatment should be repeated at intervals of one or two years until the plants are killed.

Injury to barley, oats and wheat from application of this material, especially in the early summer when the plants are in the growing stage, is very severe. It is recommended that the application of this material be deferred until the plants are well established and are in the mature stage of growth.

Determination of the Most Efficient Method of Application

The most efficient method of application of 2,4-D to control morning-glory is by use of the well field and pumping system. The best results were obtained when the spraying was done at the end of the growing season before the plants had matured.